



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/579,096	05/12/2006	Stefan Kirsch	289264US0PCT	6922
22850	7590	03/20/2008	EXAMINER	
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			REDDY, KARUNA P	
			ART UNIT	PAPER NUMBER
			1796	
			NOTIFICATION DATE	DELIVERY MODE
			03/20/2008	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com  
oblonpat@oblon.com  
jgardner@oblon.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/579,096	<b>Applicant(s)</b> KIRSCH ET AL.	
	<b>Examiner</b> KARUNA P. REDDY	<b>Art Unit</b> 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____.                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____.  | 6) <input type="checkbox"/> Other: ____.                          |

### **DETAILED ACTION**

1. This office action is in response to the appeal brief filed on 1/31/2008. Claims 1-25 are currently pending. It is noted that examiner reopened prosecution of this case.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

### ***Claim Rejections - 35 USC § 112***

3. Claims 1-25 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

While claim 1 recites a method of removing at least 50 mol% of the at least one water soluble ionic compound from the polymer dispersion, and adding at least one salt of a monoalkyl or dialkyl ester of a sulfonated dicarboxylic acid, in the specification the method includes the same steps as above but which are connected by the bridging phrase "and then adding" instead of the claimed "and adding". It is the examiner's position that by removing the constraint provided by "then" in the process described by the original specification, the claim no longer

has proper antecedent basis in the original specification. This leads to a violation of the written description requirement.

Claims 2-25 are dependent on claim 1 and are therefore subsumed in this rejection.

***Claim Rejections - 35 USC § 102***

4. Claims 1-13, 15-18, 20-21 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Wood (US 5, 286, 843) as evidenced by Pastorino et al (US 4, 940, 732).

Based on the claims as drafted, rejection is adequately set forth in paragraph 3 of office action mailed 5/23/2007 and is incorporated here by reference.

5. Claims 1-13, 15-18, 20-21 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Wood (US 5, 536, 811) as evidenced by Pastorino et al (US 4, 940, 732).

Based on the claims as drafted, rejection is adequately set forth in paragraph 4 of office action mailed 5/23/2007 and is incorporated here by reference.

***Claim Rejections - 35 USC § 103***

6. Claims 1-13, 15-18, 20-21, 23 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wood et al (US 5, 286, 843) in view of data from BASF ([http://worldaccount.basf.com/wa/NAFTA/Catalog/FunctionalPolymers/pi/BASF/Brand/acronal\\_](http://worldaccount.basf.com/wa/NAFTA/Catalog/FunctionalPolymers/pi/BASF/Brand/acronal_)).

It is noted that, should applicant amend the claim in response to the rejection under 35 U.S.C. 112 First Paragraph, to comply with written description requirement, applicant is advised that following rejection will apply.

Wood et al discloses a process for improving water whitening resistance of a pressure sensitive adhesive containing an aqueous latex emulsion and water soluble ions by removing the water soluble ions. The preferred method of removing the water soluble ions is to contact either the aqueous latex emulsion, the formulated PSA containing the aqueous latex emulsion or both with ion exchange resin (abstract). The removal of water soluble ionic compounds in the dispersion can be accomplished by dialysis, deionization with ion exchange resin to increase the water resistance (column 1, lines 66-68, column 2, line 1).

The aqueous latex polymer may be formed from any monomer or mixture of monomers which yield a water soluble latex, film forming polymer. See example 1 for the weight percentages of alkyl acrylates in claim 3; 0.3 g Emcol® 4500<sup>1</sup> surfactant which reads on ionic emulsifier and water-soluble ionic compound; Drew® T-4201 defoamer which reads on the at least one additive of claim 11. The term "latex" refers to a water soluble polymer which may be

---

<sup>1</sup> See Pastorino et al (US 4, 940, 732) for chemical name of Emcol® 4500 i.e. Sodium dioctyl sulfosuccinate (column 4, lines 5-6).

prepared by conventional polymer techniques such as emulsion polymerization (column 3, lines 18-21). The removal of water-soluble ions from the aqueous latex polymer emulsion or PSA is critical to the operation (column 3, lines 61-63) is interpreted as 100% removal and reads on the at least 50% of claim 1 and at least 90% of claim 5. The PSA is used to adhere clear labels and decals to surfaces (column 3, lines 1-2). See example 4 wherein the PSA formulation is direct coated onto Mylar® film.

Wood et al is silent with respect to adding at least one salt of a monoalkyl or dialkyl ester of a sulfonated dicarboxylic acid after the removal of water-soluble ionic compound.

However, it is well known in the art that wetting process on various substrates, with acrylic copolymer emulsions used in the manufacture of pressure sensitive adhesives, can be facilitated by the addition of 0.5 to 1.5% of a standard anionic surfactant such as sodium salt of dioctyl sulfosuccinate. Therefore, it would have been obvious to add sodium salt of dioctyl sulfosuccinate to the pressure sensitive adhesive, containing a latex aqueous emulsion, of Wood et al, for improving wettability of the pressure sensitive adhesive on various substrates.

7. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wood (US 5, 286, 843) in view of data from BASF ([http://worldaccount.basf.com/wa/NAFTA/Catalog/FunctionalPolymers/pi/BASF/Brand/acronal\\_](http://worldaccount.basf.com/wa/NAFTA/Catalog/FunctionalPolymers/pi/BASF/Brand/acronal_)) and Nakabayashi et al (US 3, 964, 955).

The discussion with respect to Wood in view of BASF in paragraph 6 is incorporated herein by reference.

Wood is silent with respect to removal of at least one ionic compound by diafiltration.

However, Nakabayashi et al teach a method of removing metal ions from the dispersing medium of an emulsion by diafiltration or dialysis method (column 10, lines 41-43). Therefore, it would have been obvious to one skilled in the art at the time invention was made to use the diafiltration method to remove ionic compounds from the emulsion polymer dispersion of Wood because Nakabayashi et al has proven successfully the removal of ionic components such as metal ions by diafiltration or dialysis method and one of ordinary skill in the art would expect the diafiltration method to work for the removal of water soluble ionic components in emulsion polymer dispersion of Wood, motivated by expectation of success.

8. Claim 14, 19 and 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wood (US 5, 286, 843) in view of data from BASF ([http://worldaccount.basf.com/wa/NAFTA/Catalog/FunctionalPolymers/pi/BASF/Brand/acronal\\_](http://worldaccount.basf.com/wa/NAFTA/Catalog/FunctionalPolymers/pi/BASF/Brand/acronal_)) and Kleiner et al (WO 02/10306 A2).

The discussion with respect to Wood in view of BASF in paragraph 6 above is incorporated here by reference.

Wood is silent with respect to transparent polymer film being PVC; and additives.

However, Kleiner et al teach pressure sensitive adhesive composition comprising acrylic emulsion polymer that exhibits high resistance to water and humidity (abstract). A particularly preferred surfactant for use in emulsion polymerization comprises about 0.5 to 1.5 % by weight of a sodium dialkyl sulfosuccinate wherein the alkyl group may have 1 to 18 carbon atoms (page 10, lines 25-26; page 11, lines 5-6). Other additives well known in the art, for example wetting agents, thickeners may be added as appropriate for specific application (page 13, lines 1-4). The PSA's have excellent adhesion to a wide variety of surfaces including nonpolar relatively low energy surfaces such as polyvinyl chloride (page 4, lines 18-22) and reads on the application of adhesive to PVC film of claims 14 and 19. Therefore, it would have been obvious to add other additives such as thickeners and use the PSA on substrates such as PVC.

### ***Response to Arguments***

9. Applicant's arguments with respect to rejection claims 1-25 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***



Any inquiry concerning this communication or earlier communications from the examiner should be directed to KARUNA P. REDDY whose telephone number is (571)272-6566.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Karuna P Reddy/  
Examiner, Art Unit 1796

/VASUDEVAN S. JAGANNATHAN/  
Supervisory Patent Examiner, Art Unit 1796